EXPLANATION OF PLATE V.

Cœnagrion interrogatum (Selys).

Fig. 1.—Male, dorsal view. Nipigon, Ont.

Fig. 2.—Male, lateral view. Spruce Brook, Newfoundland.

Fig. 3.—Female, dorsal view. Nipigon, Ont.

Fig. 4.—Female, lateral view. Nipigon, Ont.

Fig. 5.—Male, abdominal appendages, dorsal view. Spruce Brook, Newfoundland.

Fig. 6—Male abdominal appendages lateral view. Spruce Brook, Newfoundland.

AN INSECT ENEMY OF THE FOUR-LINED LEAF-BUG (*PŒCILOCAPSUS LINEATUS* FABR.)

BY C. R. CROSBY AND ROBERT MATHESON, ITHACA, N.Y.

On July 26, 1913, while examining some stems of Weigelia containing the eggs of the four-lined leaf-bug we discovered that the lower end of many of the eggs had been eaten into and the contents extracted by a small hymenopterous larva. The larva burrows through the pith until it reaches a row of eggs and then

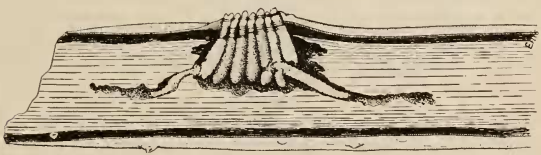

Fig. 14.—Larvæ of *C. ovisugosus* attacking eggs of the Four-lined Leaf-bug.

proceeds to destroy them one after another until three or four eggs have been eaten (Fig. 14). Frequently two larvæ may attack the same row of eggs working from opposite ends and thus destroy the entire egg mass. From an examination of a large number of egg masses in this clump of Weigelia about 50% were found to be attacked by this parasite.

The larvæ reach maturity before cold weather but do not pupate until the following spring. In order to secure adults we collected a large number of egg masses on February 28, 1914, and found the small larvæ snugly occupying cavities in the pith

near the eggs. Sometimes the larvæ retreat a short distance from the egg mass burrowing through the pith. These larvæ pupated about a week later and the adults emerged on March 23. This parasite is apparently undescribed. It is a chalcid and belongs to the genus *Cirrospilus*.

Cirrospilus ovisugosus sp. nov.

Female—Length 1.84 mm. Head brown below with a faint bluish-metallic reflection in front and above. Thorax seen from above brilliant iridescent green, blue in certain lights. Prothorax on the sides and the prosternum similar in colour. Abdomen seen from above with metallic greenish reflections, becoming brownish in front, the greater part of the first segment straw colour.

Meso- and metapleura and coxæ dull brown, almost black. Remainder of the legs straw colour, nearly white. Under surface of abdomen brownish, pale at the base, with slight metallic reflections towards the tip.

Fig. 15.—*Cirrospilus ovisugosus*, male.

Antennæ straw-coloured to brownish. Scape slender, pedicel obconic, ring-joint minute. Funicle with three segments, the first the longest, the second and third subequal. Club pointed, indistinctly three-segmented.

Male—Length 1.4 mm. (Fig. 15). Head yellow, eyes and ocelli red. Thorax and legs similar to that of the female.

Abdomen with the first and nearly all of the second segments straw colour, the remainder dark brown with coppery metallic reflections.

Antennæ pale straw colour. The scape greatly enlarged,

narrowed at the base and broadening at the tip. It is about one-third the length of entire antenna. Pedicel obconic, as long as the first segment of the funicle. Ring joint minute. Funicle 4-segmented, the first slightly longer than the others, the second, third and fourth subequal. Club pointed, about one-half as long as the funicle, distinctly 3-segmented when seen in alcoholic specimens.

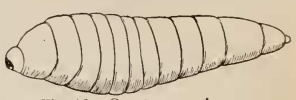

Fig. 16.—*C. ovisugosus*, larva.

Fig. 17.—*C. ovisugosus*, pupa.

Larva—Length 1.7 mm.; white with brownish jaws (See figure 16).

Pupa (newly transformed.)—Length 1.5 mm. Colour creamy white. At the base of the abdomen on the dorsal side is a large, oval, orange-coloured area extending on the thorax, apparently caused by the ingested food (Figure 17).

Described from 4 male and 1 female specimens, Ithaca, N.Y., March 23, 1913. Types in Cornell University Collection.

CARNIVOROUS HABITS OF *XYLINA BETHUNEI*; G. AND R.*

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In working with *Xylina bethunei* G. & R. the most common fruit worm or apple worm in Nova Scotia at the Dominion Entomological Laboratory at Bridgetown, N. S., in 1913, it was found that the best place to collect 5th and 6th stage larvæ was in the leaves about the cocoons of *Malacosoma disstria*. On opening a few of these cocoons the pupa contained were in some cases found to be partly eaten. A rough opening having been partly eaten and partly stretched through the cocoon from 1/3 to ¾ of the contained pupa had been devoured. Later on several larvæ were found in the act of eating into the cocoons or devouring the contained pupa. On July 8, 9, 10, 1913, 160 cocoons of *M. disstria* were collected from apple trees near the laboratory and 45 of

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